## DIVISION 700 - MATERIALS

## SECTION 701 - HYDRAULIC CEMENT

701.01 Portland Cement. Portland cement shall be either Type I or Type IP.

Type I portland cement shall conform to Type I cement in AASHTO M 85. | The twenty-eight (28) day strength requirement cited in Table 2A shall apply. \*|

Type IP cement shall conform to Type IP cement in ASTM C 595. Type IP cement includes an intimate mixture of Type I cement and not more than twenty (20) percent of a pozzolanic material.

The Contractor may use mineral admixtures to replace a portion of the \*| required portland cement according to Subsection 711.03 - Admixtures. \*|

Cement used in the manufacture of cast-in-place concrete for exposed surfaces of like elements of a structure shall be from the same mill.

The Contractor shall protect the cement from exposure to moisture until \*| used. The Contractor shall pile sacked cement to permit access for tally, \*| inspection, and identification of each shipment.

The Contractor shall provide adequate facilities to assure that cement \*| conforms to the the contract. The Contractor shall keep that cement separate \*| from other cement. The Contractor shall arrange with said supplier to | provide safe and suitable facilities for sampling cement. \*|

The Contractor shall submit a certificate of compliance to the Engineer \*|
before the use of that cement. The certificate of compliance shall state that \*|
the cement for the work complies with the contract. The certificate of \*|
compliance shall include pertinent information as to type of cement, brand, \*|
manufacturing mill in which the Contractor shall use the product. The cement \*|
manufacturer shall sign the certificate of compliance. \*|

Upon receipt of the certificate of compliance, the Engineer may permit the use of cement before release by the laboratory. The Contractor shall not \*| use the cement furnished without a certificate of compliance in the work. \*| Also, the Contractor shall not use the cement until the Department has had \*| sufficient time to make appropriate tests and has accepted the cement for use.

If the cement does not conform to the contract as resolved by laboratory \*| test samples, the Contractor shall delay the subsequent use of cement from \*| the same company if required, until the Department can make tests on each lot \*| of cement delivered.